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EXAMINER

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ART UNIT

PAPER NUMBER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### DETAILED ACTION

Receipt of amendment and response dated 2-17-09 is acknowledged.

Claims 1-9, 11-15 and 17-34 is acknowledged.

1. **The following is a new rejection in light of the amendment:**

#### ***Claim Rejections - 35 USC § 112***

Claims 1-9, 11-15 and 17-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Instant claims recite the new limitations for the variable z where “if x is O, R2 is O, n is 0, then Z is not ethylene optionally substituted by at least one radical chosen from C1-C4 alkyl and –CH2(OR)mOR5 wherein R5 is hydrogen or C1-C22 saturated or unsaturated hydrocarbon, R4 is a C2-C4 alkylene, and m is an integer ranging from 0-13, propylene, 2-hydroxypropylene, or isopropyl-2, 2'-dimethylpropylene”.

Applicants present in the remarks section submitted on 2-17-09 that the newly added limitation has support through the specification and claims as filed, and particularly para [026]. However, a careful review of the instant specification and original claims fail to provide any support for the new limitation. A review of para [026] of the specification reveals that the support is only provided for compounds of formula I that may be presented in the form of (i) -(vii). Further, in para [019], it is stated that if X is O, R2 is O and n is 0, then Z is not ethylene, isopropylene, propylene, 2-hydroxypropylene,

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or isopropyl-2, 2'-dimethyl propylene. Thus, the only proviso that is supported by the instant specification is positive exclusion of Z = ethylene, isopropylene, propylene, 2-hydroxypropylene, or isopropyl-2, 2'-dimethyl propylene, when X is O, R2 is O and n is 0. Applicants have not provided any evidence in the instant specification that the newly added proviso has been adequately described and hence the claimed invention is in possession of applicants at the time the instant application has been filed.

In the remarks section, applicants state that the new limitation does not constitute a new matter because applicants are simply claiming less than the full scope of the disclosure - a legitimate procedure for inventors entitled to decide the bounds of protection they seek. However, any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977). In the instant case, applicants did not describe the full scope of the exclusions that are envisaged at the time of the instant application was filed and therefore the argument of claiming less than the full scope is not persuasive.

The following rejection of record has been maintained:

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Instant claim is dependent from claim 1, which recites the proviso, "if x is O, R<sub>2</sub> is O, n is 0, then Z is not propylene, 2-hydroxypropylene, or isopropyl-2, 2'-dimethylpropylene". However, the instant claim recites compounds i-vii, of which compounds of V contradict the above proviso because the variable z can be CH<sub>2</sub>-CH-(R, R')-CH<sub>2</sub> where R and R' are 1-4 alkyl radicals, which allows for the excluded species .

### ***Response to Arguments***

4. Applicants' arguments filed 2-17-09 are not found persuasive because while instant claims include the proviso that Z should not be propylene, 2-hydroxypropylene, or isopropyl-2, 2'-dimethylpropylene, the compounds of V contradict the above proviso because the variable z in the two compounds can still be CH<sub>2</sub>-CH-(R, R')-CH<sub>2</sub> where R and R' are 1-4 alkyl radicals, which allows for the excluded species.

### ***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-9, 11-15 and 17-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001158724 (JP 724, abstract submitted on PTO-1449, a full translation attached to this action).

JP 724 teaches a hair dye composition comprising a 1, 3-dioxolan-2-one derivative (which is a cyclic carbonate) in combination with an acidic dye and a water soluble polymer (abstract). The cyclic carbonate described in formula 2

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recites variable R, which is  $-(OR_2)_n-OR_1$  or  $-(OR_2)_nOCOR_1$ , where  $R_1$  is an integer of 0-30 and  $R_2$  is an alkylene group of C-4 carbons. Instant claim recites a proviso that "if X is O,  $R_2$  is O, and n is 0, then Z is not ethylene, isopropylene, propylene, 2-hydroxypropylene, or isopropyl-2,2'-dimethylpropylene". JP 724 teaches formula 2, which according to the above description is not necessarily ethylene, isopropylene, propylene, 2-hydroxypropylene, or isopropyl-2,2'-dimethylpropylene and instead may include  $OR_2$ , where  $R_2$  is C2-4 and  $R_1$  may be pentyl, hexyl, heptyl, stearyl, ethylhexyl groups, xanthine, quinolone groups etc (0014-0017).

For the claims 19-20, reciting the amounts of compound of formula I, see [0019]. For the claimed additional compounds (claims 20-34), JP 724 teaches polymer (0020), wetting agents (0028), solubilizing agents, pH adjusting agents, dyes (0010) and in amounts that are within the claimed amounts ((0021).

JP 724 does not exclude the specific cyclic carbonates such as those encompassed by the instant proviso. However, JP 724 teach that the cyclic carbonate compounds encompassed by formula I are excellent in providing dye affinity to hair, skin, overcomes the problems of damaged caused by hair dyes, scarcely dyes skin and is highly safe for hairs and skins. While JP 724 does not exemplify compounds other than those in examples 3-5, JP 724 teaches all of the compounds have the above advantages and accordingly, absent evidence to the contrary, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention was made to choose any of the compounds

described by formula I of JP 724 with an expectation to achieve safe and highly effective hair dyeing effect.

### ***Response to Arguments***

Applicants' arguments filed 2-17-09 are not found persuasive. Applicants argue that isopropylene is no longer individually recited because it is included in the newly added proviso compounds and therefore the examiner's argument that a skilled artisan would have been able to prepare the compounds encompassed by the instant invention is not proper. Applicants argue that the invention as whole would not have been obvious, particularly in view of the present amendment. However, the argument is not persuasive because even though the instant claims recite the new proviso limitation "optionally substituted by at least one radical chosen from C1-C4 alkyl and  $-\text{CH}_2(\text{OR})\text{mOR}_5$  wherein  $\text{R}_5$  is hydrogen or C1-C22 saturated or unsaturated hydrocarbon,  $\text{R}_4$  is a C2-C4 alkylene, and m is an integer ranging from 0-13", the proviso only requires that  $m=0-13$ , thus, excluding only those ethylene optionally substituted with  $-\text{CH}_2(\text{OR})\text{mOR}_5$ , where  $m=0-13$ . However, Megumi teaches 1,3-dioxolane 2-one derivatives that are substituted with R, which can be  $-(\text{OR}_2)_n\text{OR}_1$  in which  $n=0-30$ .  $-(\text{OR}_2)_n\text{OR}_1$  of Megumi, where  $n=14-30$  of Megumi reads on  $-\text{CH}_2(\text{OR})\text{mOR}_5$  where  $m=$  above 13. The arguments that examples teach isopropylene that is now excluded is not

persuasive because the prior art teachings are not limited to examples and instead, the above description of Megumi suggests the claimed compounds.

The following rejection of record has been withdrawn in response to applicants' persuasive arguments:

7. Claims 1-4, 14-15, 18-23, 27 and 31-34 are rejected under 35 U.S.C. 102(a) or 102(e) as being anticipated by US 6,495,150 (Bekele).

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



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9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S. Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 9.00 AM -5.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila G. Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lakshmi S Channavajjala/  
Primary Examiner,  
Art Unit 1611  
May 20, 2009